

Work Order ID 115039

Monday, March 17, 2014 2:39:18 PM

Item ID: D3512-041

Revision ID:

Item Name: Wearplate Assembly

Start Date: 3/17/14 Start Qty: 6.00

\*6\*

Required Date: 3/17/14 Req'd Qty: 6.00

\*6\*

Reference:

Approvals: Process Plan: MLS Date: 14-03-18  
QC: \_\_\_\_\_ Date: \_\_\_\_\_

Accept

\*N900040100\*

Setup Start

\*NS1\*

Stop

\*NS2\*

Cust Item ID:

Customer:

Run Start

\*NR1\*

Stop

\*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr	Tooling: _____ Date: _____	SPC (Y/N): _____ Date: _____
D3512	D		

120

\*120\*

Large Fab

Large Fab

Memo

1- Weld hard surface using DT8874 as per Dwg D3512 & QSI 004

m123983

m123980 → 20596

A/R 2059b Hardcoat Rod

m128204 → 20596

2- Weld D3512-3 spacer to D3512-1 as per dwg

A/R S.S. Rod m120854

0.00

0.00

(4)

me 14.04.15

0.00

0.00

130

\*130\*

QC

Quality Control

Memo

14.04.16

DAS

9

9-89

DQA:

Date:



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____	<b>DISPOSITION</b>			<b>AGAINST DEPARTMENT/PROCESS</b>					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									
<b>FAULT CATEGORY</b>									
Landing Gear	<b>General</b>								
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>				
	Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>				
	Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>				
	Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>				
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>				
	Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>					
	Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>				
	Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>						
	Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>						
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
	Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						

**Work Order ID 115039**  
Monday, March 17, 2014 2:39:18 PM

**\*115039\***

Page 2

Item ID: D3512-041

Revision ID:

Item Name: Wearplate Assembly

Start Date: 3/17/14 Start Qty: 6.00

**\*6\***

Required Date: 3/17/14 Req'd Qty: 6.00

**\*6\***

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Stop

**\*NS2\***

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_

Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***  
Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

140

**\*140\***

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

0.00

0.00

(4)

1404-16

DAS

9

9-89

150

**\*150\***

Packaging

Packaging

Identify as per dwg & Stock Location: \_\_\_\_\_

Memo

2x PPP 112824  
2x PPP 114839

0.00

0.00

DAS

28

9.00

APR 16 2014

4X

160

**\*160\***

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

0.00

1404-17

JH 1404-16

DQA:

Date:



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only 

Work Order: _____	<b>DISPOSITION</b>			<b>AGAINST DEPARTMENT/PROCESS</b>					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									
<b>FAULT CATEGORY</b>									
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b>					
				<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Pressure/Forced		
				<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Set-up		
				<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Temperature/Cure		
				<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Weld		
				<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved	<input type="checkbox"/> Wrong Stock Pulled		
				<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong	<input type="checkbox"/> Other		
				<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge			
				<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread				
				<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set				
				<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration				
				<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence				

**Picklist Print**

Page 1

Monday, March 17, 2014 2:39:18 PM

Work Order ID: 115039

**\*115039\***

Parent Item: D3512-041

**\*D3512-041\***

Parent Item Name: Wearplate Assembly

Start Date: 3/17/14

Required Date: 3/17/14

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV:A 13.07.19 NEW ISSUE DD VERF:JLM  
REV:B 13.12.11 ECN13-619/ REV.D DWG DD VERF:JLM

IPP

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3512-1 \*D3512-1\* Stainless Steel Wearplate Manufactured No Each 13.0000 \*\* 6 14.04.15

Location	Loc Qty	Loc Code
FG	2	
89154	2	
ST500	7	
106042	7	
WA001	4	
113918	4	-4

D3512-3 \*D3512-3\* Spacer Manufactured No Each 0.0000 \*\* 0 14.04.15

B113028 x 4

DQA:

Date:



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Work Order update only 

Work Order: _____	<b>DISPOSITION</b>			<b>AGAINST DEPARTMENT/PROCESS</b>					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved									
<b>FAULT CATEGORY</b>									
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function		<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence		<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled		

8

7

6

5

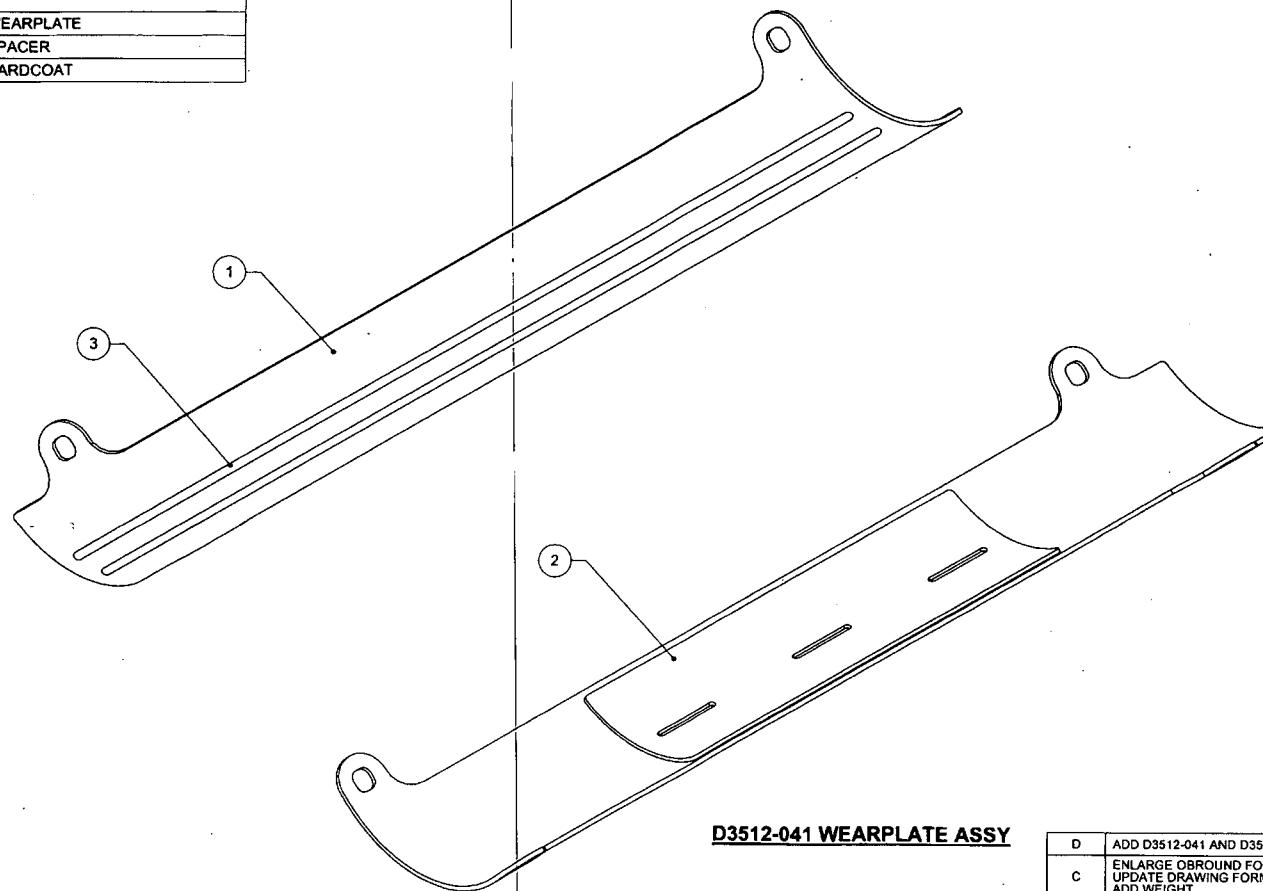
4

3

2

1

ITEM	QTY 041	P/N	DESCRIPTION
	X	D3512-041	WEARPLATE ASSY
1	1	D3512-1	WEARPLATE
2	1	D3512-3	SPACER
3	A/R	2059B	HARDCOAT



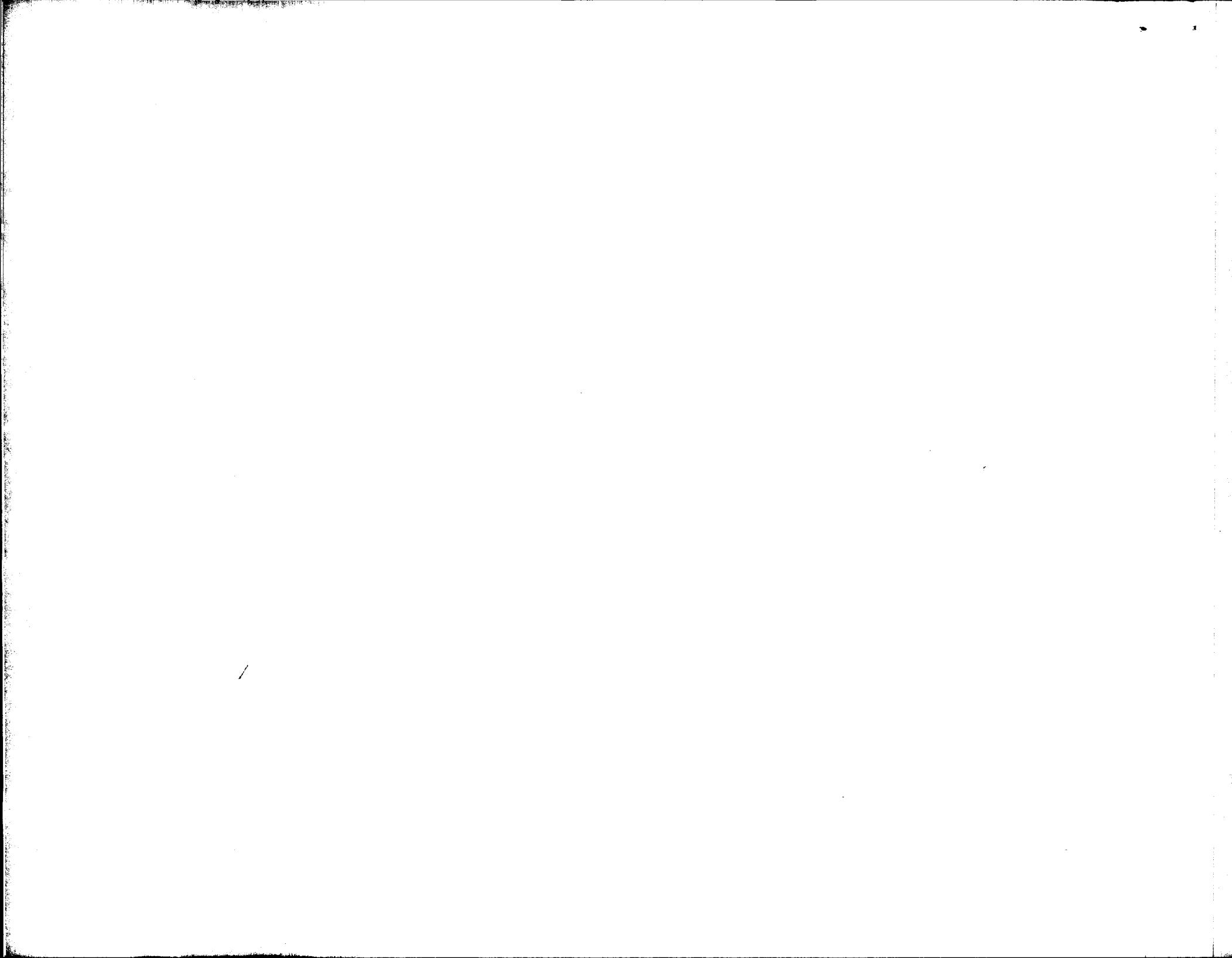
115039 MLJ  
14-03-18

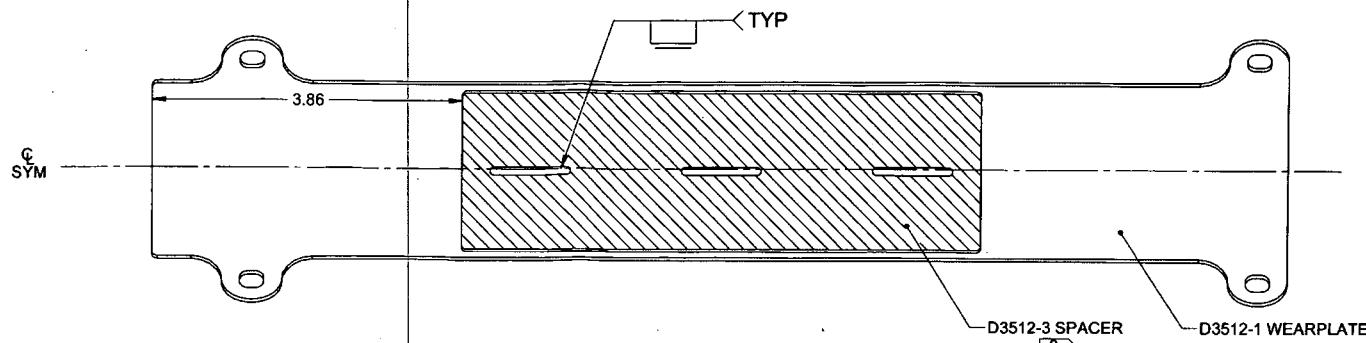
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R 2013-12-10  
W

**D3512-041 WEARPLATE ASSY**

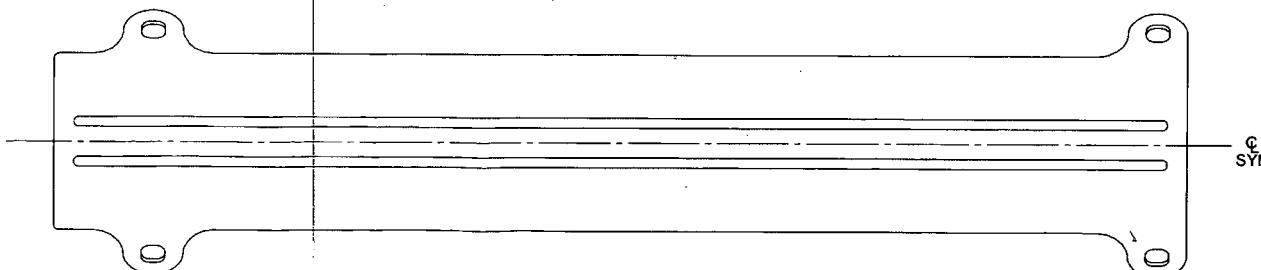
D	ADD D3512-041 AND D3512-3		DW	13.08.28		
C	ENLARGE OBROUND FOR EASIER ASSEMBLY UPDATE DRAWING FORMAT ADD WEIGHT		PH	07.10.05		
B	CHANGE MATERIAL TO STAINLESS STEEL		PH	06.10.27		
A	NEW ISSUE		PH	06.04.21		
REV.	DESCRIPTION		BY	DATE		
DESIGN	DW	<b>DART AEROSPACE LTD</b>				
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA				
CHECKED	(P)	REV. D				
MFG. APPR.	(M)	DRAWING NO. D3512				
APPROVED	(S)	SHEET 1 OF 4				
DE APPR.	(S)	TITLE	SCALE			
DATE	13.08.28	WEARPLATE ASSY	NTS			

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**SECTION A-A**  
**SCALE 1:1.5**



**D3512-041 WEARPLATE ASSY**

**NOTES:**  
 1) MATERIAL: N/A  
 2) FINISH: NONE  
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
 4) UNITS: INCHES UNLESS OTHERWISE NOTED  
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3512-041" USING FINE POINT PERMANENT INK MARKER  
 7) WEIGHT: 0.94 lbs  
 8) WELDING: PER QSI 004. 2059B HARDCOAT WELD 0.063 TO 0.125 THK  
 9) COAT HATCHED (CONCAVE) SURFACE WITH PLUS ONE ROCKGUARD 4714, 0.020-0.040 THK

DESIGN	DW	<b>DART AEROSPACE LTD</b>	
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA	
CHECKED	10		
MFG. APPR.	10	REV. D	
APPROVED	10	D3512 SHEET 2 OF 4	
DE APPR.	10	TITLE	WEARPLATE ASSY
DATE	13.08.28	SCALE	NTS

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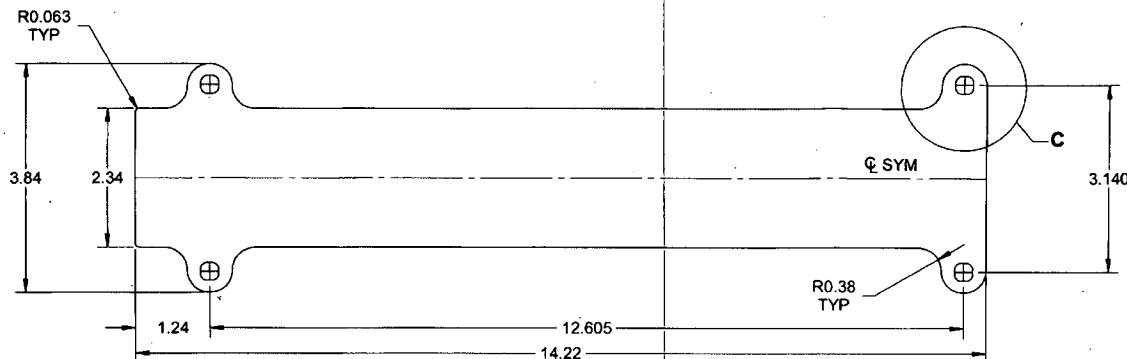
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2013-12-10

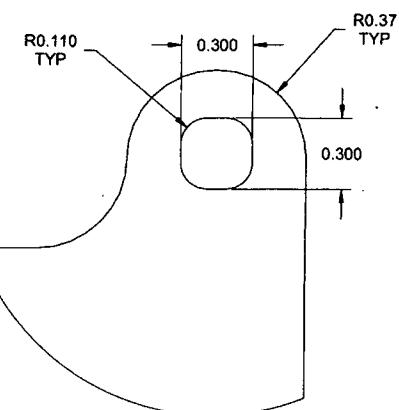
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D

D



D3512-1F



B

B

A

A

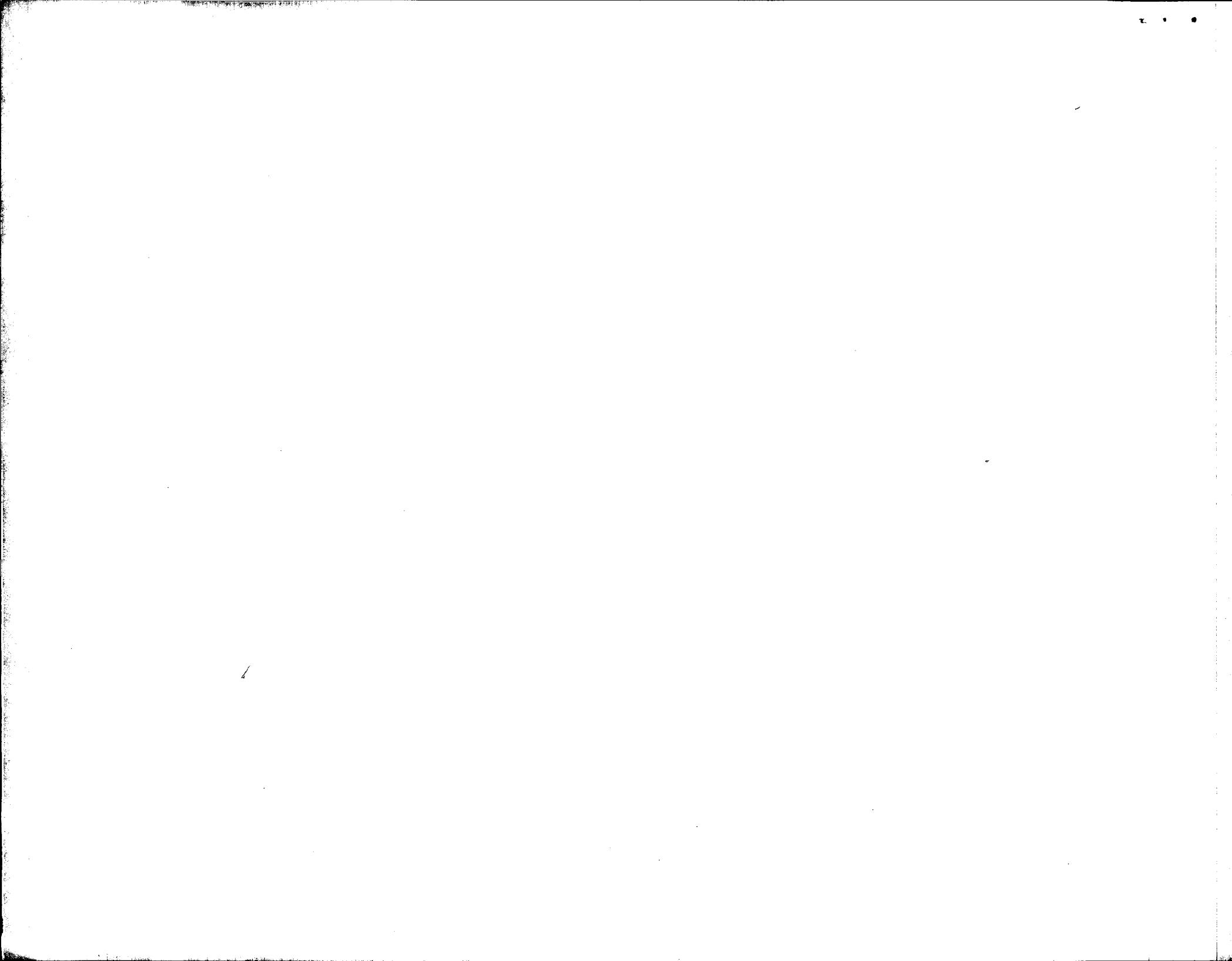
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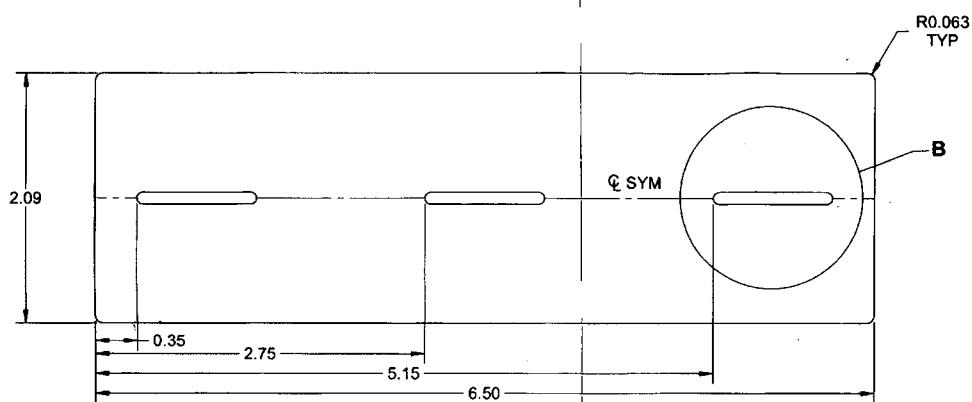
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL PER MIL-S-5059 OR AMS 5513 OR 5524 OR ASTM A240 18 GAUGE 0.063 THICK (REF DART SPEC. MS304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.63 lbs

8 7 6 5 4 3 2 1

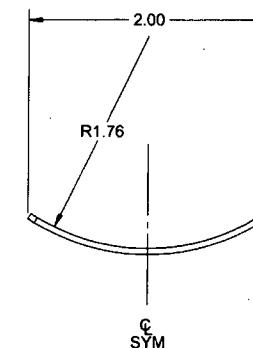
DESIGN	DW	DART AEROSPACE LTD	
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>M</i>	DRAWING NO. REV. D	
MFG. APPR.	<i>M</i>	D3512 SHEET 3 OF 4	
APPROVED	<i>M</i>	TITLE SCALE	
DE APPR.	<i>M</i>	WEARPLATE ASSY NTS	
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RELEASED  
2013-12-10  
*M*

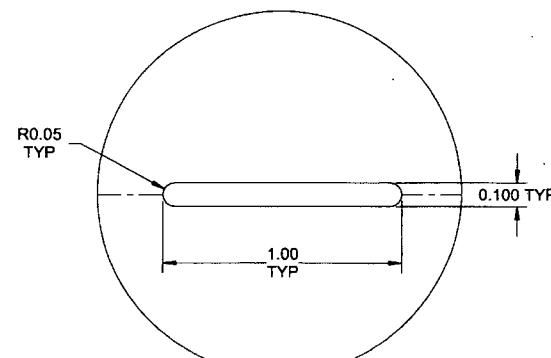




D3512-3F FLAT PATTERN



**D3512-3 SPACER**  
MAKE FROM D3512-3F



**DETAIL B**  
SCALE 2X

RELEASER  
2013-12-10  
*M*

**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL PER MIL-S-5059 OR AMS 5513 OR 5524 OR ASTM A240  
18 GAUGE 0.050 THICK (REF DART SPEC. MS304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.19 lbs

DESIGN	DW	<b>DART AEROSPACE LTD</b>
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	REV. D
MFG. APPR.	<i>[Signature]</i>	D3512 SHEET 4 OF 4
APPROVED	<i>[Signature]</i>	TITLE
DE APPR.	<i>[Signature]</i>	SCALE
DATE	13.08.28	WEARPLATE ASSY NTS

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